

Message

From: Ketu, Rupika [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=E3C0F647195C41EE942117F4E6330EF0-KETU, RUPIK]
Sent: 10/26/2022 7:20:42 PM
To: Griffiths, Rachel [griffiths.rachel@epa.gov]
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Okay, perfect. Thank you!

FYI I also submitted the QAPP to LSASD, so I will wait to send these comments until I hear back from them, but ill share with stephanie in the meantime.

Thanks again,
Rupika

From: Griffiths, Rachel <griffiths.rachel@epa.gov>
Sent: Wednesday, October 26, 2022 3:18 PM
To: Ketu, Rupika <Ketu.Rupika@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Oops -- existing language should cover it -- see below from QAPP PDF pg 17

QAPP WORKSHEET #11: PROJECT DATA QUALITY OBJECTIVES

The Data Quality Objective (DQO) process is a systematic planning tool that was designed to clarify the objectives of data collection and maximize efficiency during the data collection process. The DQO process is used to establish performance or acceptance criteria, which is the basis for designing a plan for collecting data of sufficient quality and quantity to support the goals of a study. There are seven steps to the DQO process as outlined in EPA/240/B-06-001, *Guidance on Systematic Planning Using the Data Quality Objectives Process* (USEPA, 2006).

Step 1. State the Problem – This step defines the issues to be addressed. The investigation described by this QAPP consists of the inspection and repair of Site monitoring wells followed by one groundwater sampling event at all Site monitoring wells, with samples being analyzed for a select list of per- and polyfluoroalkyl substances (PFAS) analytes. PFAS are a component of various household and industrial products and may have been disposed of in the landfill or may originate at upgradient sources and impact groundwater at the Site. This sampling event will characterize the extent of those PFAS analytes in groundwater at the Site. In addition, a desktop evaluation of the potential sources of PFAS at the Site will be performed both upgradient and downgradient of the Site.

Step 2. Identify the Goal of the Study – This step identifies the question(s) that the project will attempt to resolve and the actions which will be taken. The sampling discussed in this QAPP will (1) evaluate the distribution of the select list of PFAS analytes in groundwater at the Site; (2) help determine where additional monitoring wells are needed to complete delineation; (3) evaluate whether sampling of other media for PFAS is warranted; (4) identify potential sources of PFAS at the Site.

Step 3. Identify Information Input – This step involves evaluation of existing data, identification of data gaps, and identification of new data needs. As discussed in the Technical Report *PFAS Results for Groundwater Sampler* (Geosyntec, 2022), an initial round of groundwater sampling showed that PFAS are present in certain monitoring wells at the Site at concentrations above their New Jersey Groundwater Quality Standards (GWQS), and generally occur at higher concentrations on the eastern side of the Site.

Step 4. Identify the Boundaries of the Study – This step is used to define the geographic and temporal boundaries. The boundary of the study area is the landfill and the adjacent areas. Sampling activities are expected to start in January 2023.

Step 5. Develop the Analytic Approach – The analytic approach summarizes how the information collected will guide the identification of next steps. Samples will be collected and analyzed according to the sampling design provided in Worksheet #17 of this QAPP. Data in the Technical Report *PFAS Results for Groundwater Sampler* indicate that PFAS concentrations exceed their GWQS in select monitoring wells at the perimeter of the Site. Based on these data and the new data to be obtained in the proposed sampling event, additional monitoring wells will be proposed for installation to delineate the extent of PFAS related to the Site.

From: Ketu, Rupika <Ketu.Rupika@epa.gov>
Sent: Wednesday, October 26, 2022 3:13 PM
To: Griffiths, Rachel <griffiths.rachel@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Yes, agreed! Should I ask them to include DQOs in general? And yes, will do!

From: Griffiths, Rachel <griffiths.rachel@epa.gov>
Sent: Wednesday, October 26, 2022 1:13 PM
To: Ketu, Rupika <Ketu.Rupika@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Hmm I think that yes, they will need additional wells to fully delineate the extent of PFAS. It may be better to resample the entire well network prior so all data gaps can be identified and addressed in a single mobilization. That should definitely be one of the DQOs for this work – identify data gaps and propose additional monitoring locations.

The rest of your comments look good! One little typo in the last one – ob instead of “of”

And before you send mine on – can you update the units in my Table 1 comment so both are ng/L?

-Rachel

From: Ketu, Rupika <Ketu.Rupika@epa.gov>
Sent: Wednesday, October 26, 2022 8:48 AM
To: Griffiths, Rachel <griffiths.rachel@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Hi Rachel!

I finally got a chance to look at the work plan and have the following comments. I wanted to get your thoughts on them first before sending a compiled version of our comments to Stephanie. Do you think they're reasonable? We asked that they also look at new locations for wells. Do you think additional wells are needed/critical to delineate the extent of the plume?

Also, yes, they're not doing soil or any other media at the moment. We had a call with them and they pushed back pretty hard on doing everything and want to finish GW investigations first. I personally disagreed...but final decision wasn't mine.

Section 4.2, pg. 9, par 1: “Following well inspection, a plan will be made to repair damage or replace wells as appropriate.” The plan should also include a determination of new groundwater monitoring well locations.

Section 4.3, pg. 9, par 1: “If possible, the new wells will be located within 10 feet of the original wells.” Confirm locations with EPA before reinstalling MW-6 and X-6.

Table 3: Explain why there is no data available for X-4 and X-5. EPA understands that there were issues with X-7, MW-6, and X-6, but there is no mention of ob X-4 and X-5.

Thanks!!
Rupika

From: Griffiths, Rachel <griffiths.rachel@epa.gov>
Sent: Wednesday, October 19, 2022 3:41 PM
To: Ketu, Rupika <Ketu.Rupika@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Sounds good! I saw it as low-hanging fruit to break up the FS I've been stuck in. Talk soon!

From: Ketu, Rupika <Ketu.Rupika@epa.gov>
Sent: Wednesday, October 19, 2022 3:40 PM

To: Griffiths, Rachel <griffiths.rachel@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Thank you so much!! I've had site visits all week so I haven't had a chance to review, but I will review it next week, gather my thoughts, and review your comments as well. Thanks!

From: Griffiths, Rachel <griffiths.rachel@epa.gov>
Sent: Wednesday, October 19, 2022 3:33 PM
To: Ketu, Rupika <Ketu.Rupika@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Hi Rupika,

Did a pretty quick review of this one. Overall I think it was an acceptable work plan – I see from the planning notes that it was intended to focus on groundwater and won't include surface water sampling at this time. That's fine. Some comments:

PFAS Work Plan:

Section 4.3 pg 9 par. 1: Please note that if any of the wells need to be replaced (specifically MW-6 and/or X-6), the original well will be properly decommissioned.

Section 4.4 pg 10 par. 5: The referenced analytical method should be updated to either EPA Modified Method 537.1, 533, or 1633 (as opposed to 537). This also needs to be addressed in Table 3 and the QAPP. (see <https://www.epa.gov/water-research/pfas-analytical-methods-development-and-sampling-research> for current methods)

Table 1: Please note that the EPA has published a Final Lifetime Health Advisory for PFBS (2,000 ng/L) and GenX chemicals (10 ppt). The final HA values should be added to the analytical tables and discussion of the upcoming data.

Appendix B – UFP QAPP

Please update the necessary worksheets that reference Analytica Method 537 per comment on Work Plan.

Interested to hear your thoughts! Let me know if you have any questions on my comments.

-Rachel

From: Ketu, Rupika <Ketu.Rupika@epa.gov>
Sent: Tuesday, October 18, 2022 9:08 AM
To: Griffiths, Rachel <griffiths.rachel@epa.gov>
Subject: FW: Rolling Knolls Groundwater Sampling Work Plan

From: John Persico <JPersico@Geosyntec.com>
Sent: Tuesday, October 18, 2022 7:56 AM
To: Ketu, Rupika <Ketu.Rupika@epa.gov>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

Here are the files, Rupika. Sorry for the issues with the link.

From: Ketu, Rupika <Ketu.Rupika@epa.gov>
Sent: Monday, October 17, 2022 7:03 PM
To: John Persico <JPersico@Geosyntec.com>
Subject: RE: Rolling Knolls Groundwater Sampling Work Plan

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Hi John,

I'm having trouble accessing the folder. Can you share it directly with my email? Or send them through zipfile?

Thanks,
Rupika

From: John Persico <JPersico@Geosyntec.com>

Sent: Friday, October 14, 2022 3:44 PM

To: Ketu, Rupika <Ketu.Rupika@epa.gov>; Vaughn, Stephanie <Vaughn.Stephanie@epa.gov>

Cc: Richard Ricci <rricci@lowenstein.com>; Gabala, Allison <agabala@lowenstein.com>; Mickey Faigen <mfaigen@issuesllc.com>; Fisher, Gary (Nokia - US/Murray Hill) <gary.fisher@nokia.com>; alalonde@riker.com; Truedinger, Robb <robb.truedinger@novartis.com>; O'Meara, James <james.omeara@novartis.com>; Steven Lucks <slucks@fishkinlucks.com>; Longo, Nick <nick.longo@chevron.com>; Gaule, Christopher <ezxk@chevron.com>; 'Robert A. Malinoski' <RMalinoski@chevron.com>; Vineyard, Dan <dvineyard@jw.com>; Jessica M. Evans <JMEvans@Geosyntec.com>; Christine Julias <CJulias@Geosyntec.com>

Subject: Rolling Knolls Groundwater Sampling Work Plan

Good afternoon. The link below will take you to a folder that contains the work plan for groundwater sampling for PFAS at Rolling Knolls. There are three files:

- Work Plan (including Appendix A)
- Appendix B (QAPP); and
- Appendix C (HASP).

Please let me know if you have any questions.

☐ [Rolling Knolls Groundwater Sampling for PFAS](#)

John L. Persico, P.G. (PA)
Principal
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